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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/755,717	01/12/2004	Karlo Popp	054821-0879	9773
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Marcus W. Sprow Foley & Lardner Suite 3800 777 East Wisconsin Avenue Milwaukee, WI 53202-5306				
			EXAMINER	
			ONEILL, KARIE AMBER	
			ART UNIT	PAPER NUMBER
			1745	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/755,717

Applicant(s)

POPP, KARLO

Examiner

Karie O'Neill

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1745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 March 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 March 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 1-12-04, 3-13-07.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

1. The Applicant's amendment filed on March 13, 2007, was received. Claims 1 and 7 were amended.
2. The text of those sections of Title 35, U.S.C. code not included in this action can be found in the prior Office Action issued on December 13, 2006.

Information Disclosure Statement

3. The information disclosure statement (IDS) submitted on March 13, 2007 has been considered by the examiner.

Drawings

4. The drawings were received on March 13, 2007. These drawings are acceptable and the objection is withdrawn.

Specification

5. The amendment to the specification, received March 13, 2007, has been received and is acceptable.

Claim Rejections - 35 USC § 112

6. The Claim rejections under 35 U.S.C. 112, second paragraph, with regard to Claims 1-8 are withdrawn, because Claims 1 and 7 have been amended.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-5 and 7 rejected under 35 U.S.C. 103(a) as being unpatentable over Quist (US 4,410,610) in view of Adams et al. (US 4,859,547).

With regard to Claims 1-3, Quist discloses in Figure 3, a rechargeable battery having a cover (see Claim1), comprising: a pole bushing for batteries comprised of a metal sleeve. The connecting pole passes through the pole sleeve having an inner surface and is electrically connected to the pole sleeve via an upper connection (1) (column 1 lines 16-21 and column 2 lines 18-23). The metal sleeve forms a fluid tight seal with the sealing material and seals the rechargeable battery to make it liquid-tight and gas-tight (column 2 lines 32-36). The rubber seal material (4) or sliding element, which is in the shape of a ring, is positioned between the pole shank and the sleeve covering the pole shank (see Figure 3). Quist discloses the first section of the pole shank being electrically conductively connected to the pole sleeve, but does not disclose wherein the diameter of the first section is smaller than the diameter of the second section. It would have been an obvious matter of design choice to modify the first and second sections of the pole shank in order to provide a tighter seal, since such a modification would have involved a mere change in the size of a component. A change in shape is generally recognized as being within the level of ordinary skill in the

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art. *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1996). Quist does not disclose the terminal pole being closed from the outside.

Adams et al. disclose a battery terminal post having a first and second bushing or sleeve. The first and second bushing are assembled together and formed in the opening of the container or casing wall (column 3 lines 65-68). The second bushing has an attachment section (12) used to attach the pole sleeve to the battery cover or casing wall (column 3 lines 30-37 and Figures 3-5). The seal connection between the battery sleeve and the casing wall prevents the leakage from the battery. At the time of the invention it would have been obvious to one of ordinary skill in the art to include a terminal pole cover (22) on the outer end of the terminal pole in order to seal off any remaining interstices between the battery post and bushing as taught by Adams et al. (column 6 lines 20-36).

With regard to Claims 4-5, Quist discloses in Figures 1-3, a sleeve (1) of metal, which is embedded in a sealing material (2) to form a sealing element with external (3) and internal (4) surfaces for making direct contact with the battery cover (5) and a post (6) (column 2 lines 7-11).

With regard to Claim 7, Quist disclose wherein the pole sleeve (1) comprises an insertion opening or upper end portion (8) formed in the sleeve in order to accept entry or exit of the post (6) and wherein the sliding element (4) is provided in the form of a ring which is provided on the insertion opening or in conjunction with the upper end portion (8) of the pole sleeve (1). Quist does not disclose wherein the insertion opening is formed by a circumferential incline, which enlarges the internal diameter of the pole

sleeve, however, it would have been an obvious matter of design choice to modify the insertion opening of the pole sleeve in order to make for easier entry of the pole shank, since such a modification would have involved a mere change in the size of a component. A change in shape is generally recognized as being within the level of ordinary skill in the art. *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1996).

9. Claims 4 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Quist (US 4,410,610) in view of Adams et al. (US 4,859,547), as applied to Claims 1-5 and 7 above, and in further view of McHenry et al. (US 5,273,845).

Quist and Adams et al. disclose the rechargeable battery having a cover in paragraph 8 above, but do not disclose wherein the sliding element is constructed from plastic and is integrally formed on the cover as a unitary structure. Quist does disclose that the sliding element is integrally formed on the cover (see Figure 3 and column 2 lines 7-12).

McHenry et al. disclose in Figure 2, a terminal structure and seal. The plastic seal (24) is integrally formed with the battery cover (25) (column 2 lines 30-38). McHenry et al. disclose a plastic sealing member between the pole shank and the metal bushing. Having the plastic seal formed integrally with the battery cover alleviates the need to weld the metal sleeve to the battery cover and alleviates the need for the pole sleeve to be resistant to the electrolyte material (column 3 lines 3-10). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use plastic instead of rubber to seal the pole shank because plastic is resistant to corrosion from battery electrolyte and is a good sealing material. Also, it would have been

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obvious to one having ordinary skill in the art at the time the invention was made to make the seal integral with the battery cover since it has been held that making elements integral, which have formerly been multiple pieces and put together involves only routine skill in the art. See *Schenck v. Nortron corp.*, 713 F.2d 782, 281 USPQ 698 (Fed. Cir. 1983); *Nerwin v. Erlichman* 168 USPQ 177 (PO Bd Pat App 1969); *In re Wolfe*, 116 USPQ 443 (CCPA 1958).

10. Claims 1 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Quist (US 4,410,610) in view of Adams et al. (US 4,859,547) and in further view of Dougherty et al. (US 4,775,604).

With regard to Claims 1-3, Quist discloses in Figure 3, a rechargeable battery having a cover (see Claim 1), comprising: a pole bushing for batteries comprised of a metal sleeve. The connecting pole passes through the pole sleeve having an inner surface and is electrically connected to the pole sleeve via an upper connection (1) (column 1 lines 16-21 and column 2 lines 18-23). The metal sleeve forms a fluid tight seal with the sealing material and seals the rechargeable battery to make it liquid-tight and gas-tight (column 2 lines 32-36). The rubber seal material (4) or sliding element is positioned between the pole shank and the sleeve and forms a covering on the pole shank (see Figure 3). Quist discloses the first section of the pole shank being electrically conductively connected to the pole sleeve, but does not disclose wherein the diameter of the first section is smaller than the diameter of the second section. It would have been an obvious matter of design choice to modify the first and second sections of

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the pole shank in order to provide a tighter seal, since such a modification would have involved a mere change in the size of a component. A change in shape is generally recognized as being within the level of ordinary skill in the art. *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1996). Quist does not disclose that the sliding element is a coating applied to the pole shank or that the terminal pole is closed from the outside.

Adams et al. disclose a battery terminal post having a first and second bushing or sleeve. The first and second bushing are assembled together and formed in the opening of the container or casing wall (column 3 lines 65-68). The second bushing has an attachment section (12) used to attach the pole sleeve to the battery cover or casing wall (column 3 lines 30-37 and Figures 3-5). The seal connection between the battery sleeve and the casing wall prevents the leakage from the battery. At the time of the invention it would have been obvious to one of ordinary skill in the art to include a terminal pole cover (22) on the outer end of the terminal pole in order to seal off any remaining interstices between the battery post and bushing as taught by Adams et al. (column 6 lines 20-36).

Dougherty et al. disclose a method and apparatus for sealing a battery terminal post. The battery cover container and the lead are sealed with a rubber bushing or sleeve (see Abstract). A silicon oil is used to prevent the migration of the electrolyte along the terminal post therefore preventing corrosion of the outer surface of the terminal post (column 3 lines 12-16 and Abstract). As well, silicon oil acts as a lubricant to accommodate movement between the terminal post and the bushing (column 3 lines 42-49). It would have been obvious to one having ordinary skill in the art at the time the

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invention was made to modify the battery pole of Quist to include a coating on the battery pole such as taught by Dougherty et al. in order to allow the pole to be inserted into the sleeve with ease.

Response to Arguments

11. Applicant's arguments filed March 13, 2007, have been fully considered but they are not persuasive.

Applicant's principal arguments are:

(a) Examiner has cited no teaching in the prior art of a "rechargeable battery having a cover" and "wherein the diameter of the first section is smaller than the diameter of the second section".

In response to Applicant's arguments, please consider the following comments:

(a) Quist states in Claim 1, "a pole bushing for a lead acid type battery of the type having a cover". Quist discloses the first section of the pole shank being electrically conductively connected to the pole sleeve, but does not disclose wherein the diameter of the first section is smaller than the diameter of the second section. It would have been an obvious matter of design choice to modify the first and second sections of the pole shank in order to provide a tighter seal, since such a modification would have involved a mere change in the size of a component. A change in shape is generally recognized as being within the level of ordinary skill in the art. *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1996).

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karie O'Neill whose telephone number is (571) 272-8614. The examiner can normally be reached on Monday through Friday from 8am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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PATRICK JOSEPH RYAN
SUPERVISORY PATENT EXAMINER

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Examiner
Art Unit 1745

KAO